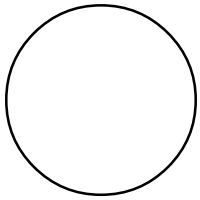
Clock Builder

Materials: Yellow Cuisenaire rods or 1 x 5 cm paper strips (12 per student)

Procedure:

(1) Teacher demonstrates skip counting by 5s with overhead rods.
As a way of organizing the rods on the overhead, they are placed in a circle.



(2) Teacher points to the rightmost end of each rod as he/she demonstrates skip counting.

(3) Students build the same type of circle with their rods. If paper rods are used, glue the design to a piece of writing paper.

(4) Students with teacher practice oral skip counting by 5s on the circle.

(5) On the inside of the circle or on the overhead rod, the teacher writes the ordinal number of each rod.

<u>About this stage, students will comment that this looks like a clock!</u>

(6) As teacher says:

"One rods is?", students respond	"Five"
"Two rods are?"	"Ten"
"Three rods are?"	"Fifteen"
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"Twelve rods are?"	"Sixty"

(7) Have students write the ordinal numbers on their work.

(8) Begin connecting the skip counting to multiplication by asking the value of one yellow rod? [(5 units) Show this by aligning five 1 cm rods along the edge on one 5 cm rod.]
Now as the teacher says:

"1 times 5 is?", students respond as they point to the appropriate rod	"Five"
"2 times 5 is?"	"Ten"
"3 times 5 is?"	"Fifteen"
"12 times 5 is?"	"Sixty"

(9) Pose the following situation to students:
"If we were going to connect one of these rods (long orange or short light green) to the center of the circle and use it as a pointer, which rod would make the reading of the values easiest?" "Why?" [Long orange rod because it is closer to the numbers on the circle.]

(10) Have students use a long (1 by 10 cm) orange rod to rotate around the center point of the circle and point to different values as the teacher calls out the random products of 5 values. [10, 30, 5, 45, . . .]